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TITLE OF THE INVENTION

Automatic braking system equipped in automobiles, cars, trucks..

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] "Not Applicable"

STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH

[0002] "Not Applicable"

REFERENCE TO A MICROFICHE APPENDIX

[0003] "Not Applicable"

BACKGROUND OF THE INVENTION

[0004] It came from my imagination in the field of invention since traffic accident often happens where it costs human life daily even if one finds unsafely crossing the street. My imagination turns to develop step by step certain technical components related to my invention and I finally discover the structure of my invention by a system to brake a car automatically through modern technical operation.

BRIEF SUMMARY OF THE INVENTION

[0005] Automatic braking systems are to be equipped in automobiles, cars, trucks.. The advantages of the invention are to prevent killing, hurting human beings and damaging materials from traffic accidents.

[0006] This system composes of essential parts : Camera/radar(s) or equivalent equipment, an electric motor, a triangle wheel or hexagon/multiple-angle wheel, an extension at the upper part of pedal or pedal part, electric wires, a contact, button for driver use, a sonorous signal lamp, an alarm, inner triangle wheel, iron lock switches or similar locking device, springs, ball bearing, pin, frame with moving ball, arms,

support strong springs, new pedal, protection cover, automatic brake pedal, (structure Duo & Du:) lock device, brackets (arm), switches, iron bars, outer or inner rewind spring, switch device..

BRIEF DESCRIPTION OF THE DRAWINGS

- [0007] FIG. 1 : Triangle wheel is equipped with motor
- [0008] FIG. 2 : Different views of triangle wheel
- [0009] FIG. 3 : Braking system network
- [0010] FIG. 4 : Electrical circuit
- [0011] FIG. 5 : Braking system
- [0012] FIG. 6 : Sonorous signal lamp and its function
- [0013] FIG. 7 : Structure Duo (7A)
- [0014] FIG. 8 : Structure Duo (7B)
- [0015] FIG. 9 : Different views of structure Duo
- [0016] FIG. 10 : Structure Du (7A)
- [0017] FIG. 11 : Structure Du (7B)
- [0018] FIG. 12 : Different views of structure Du
- [0019] FIG. 13 : Structure Du with double spin motor (7B)
- [0020] FIG. 14 : Different views of structure Du d.s.m.
- [0021] FIG. 15 : Entire braking system network
- [0022] FIG. 16 : Entire Electrical circuit
- [0023] FIG. 17 : New pedal
- [0024] FIG. 18 : Pedal protection cover
- [0025] FIG. 19 : Automatic brake pedal
- [0026] FIG. 20 : Automatic brake pedal movement

DETAILED DESCRIPTION OF THE INVENTION

[0027] FIG. 3 & 15 show braking system network and electrical circuit of the control unit 14. FIG. 4 & 16 are diagrams of electrical connection of driver contacts 13 (FIG. 4) & J2 (FIG. 16) to sonorous signal lamp 12, braking system standby 15 B1 and braking system movement 15 B2.

[0028] FIG. 5 ; Camera or radar(s) 11 which has anti-frozen or heating system against snow is equipped in front of a car to view (detect) object or person who crosses a street accidentally at certain distance while a car is running, this camera or radar(s) 11 then sends information by electric wire to switch the motor on immediately to brake the car automatically by itself 7B.

[0029] FIG. 2 ; The motor 2 runs by car electric power, its axis is equipped with a triangle wheel. Whenever the triangle wheel 3 turns to its edge point pressing at the opposite side of the upper pedal 1, it is the moment it brakes the car 7B as if a driver brakes his pedal at the lower part. The brake will be released while the flat part of the triangle wheel touches the upper pedal 7A as a driver releases his foot off the pedal.

[0030] FIG. 2 ; There is a ball bearing 5 with pin 4 fixed firmly at the surface of wheel nearby its flat part corner where a spring 6 is fastened from pin 4 to a moving ball 10 of motor frame 8 pulling the wheel at the right position after each spin so as to unlock the brake. We set three iron switches 17 or similar locking device inside the motor at positions to turn motor off prior to locking at edge points of an inner triangle wheel 16 at braking position. FIG. 4 ; The button 13C is utilized to switch the motor on rotating at the same spin or opposite spin to release the brake C. We fix the motor 2 between two strong springs 9 to support its spin, the motor is linked with an arm 2a at its end to the frame 8 letting motor moving at its specific position in FIG. 2.

[0031] FIG. 7 ; Structure Duo : 7A once radar(s) or sensor(s) functions, FIG. 8 at 7B triangle wheel Duo3 turns to brake on pedal part Duo1, it will be locked by motor lock device Duo10 to its bracket arm Duo7 at braking position after motor Duo2 is turned off by switch Duo11, the motor is linked with a spring Duo6 to pull the triangle wheel by its pin Duo4 rotating a ball bearing Duo5 for back spin. Releasing is drawn by driver's button J2d rotating wheel to iron bar Duo13 blockaded at wheel bracket Duo12 (FIG. 9). FIG. 9 ; We fix the motor between two supporting springs Duo9 ending with an arm Duo2a to the frame Duo8.

[0032] FIG. 10 ; Structure Du : 7A the motor Du2 has its triangle wheel Du3 to brake on pedal part Du1, FIG. 11 ; braking 7B is locked by lock device Du7 to wheel bracket arm Du11 after turning off by switch Du8, driver's button J2d is drawn for releasing. FIG. 12 ; Motor ending with arm Du2a is fixed by two springs Du10 in a frame Du9, back spin is by outer or inner rewind spring Du4 rotating to blockade wheel arm Du5 to motor bar Du6. FIG. 13 ; 7B if a double spinning motor is used replacing rewind spring, we draw driver's button J2e-Du13 on releasing and FIG. 14 ; wheel bracket Du12a will be locked at switch device Du13a turning motor at back spin off. Radar(s) functions as usual.

[0033] FIG. 2 ; An extension of the upper part of the normal pedal is needed for the triangle wheel to brake on it at the opposite side. FIG. 4 ; Driver may switch off the system 15 by using a driver's contact 13B to 13A if necessary or driver finds impossible to balance his car on ice-covered road if braking operates. Sonorous signal

lamp 12 rings while Automatic braking system is turned off, it is to make sure the system is on when the car starts.

[0034] FIG. 17 ; A new pedal 18 is utilized for Automatic Braking unit (A.B.). However it depends structures on vehicle, the braking unit may be equipped at upper part of pedal at driver's side, its wheel will brake directly on it without requirement of pedal extension provided it is covered with safe protection; rubber boot 19 in FIG. 18 as it has to be during automatic braking movement.

[0035] FIG. 19 ; There is automatic brake pedal 20 particularly designed to be manufactured for use in automatic braking system, FIG. 20 ; It brakes independently without causing movement of car pedal 1 (FIG. 19).

[0036] This is a new invention automatic braking system to be equipped in automobiles, cars, trucks and all vehicles that do not possess such a system.

[0037] Further proposal is to have small radar equipments equipped at both right & left sides of a car with ability to sound (signal) alarm to driver once running cars extremely approach each other.